



CAPITAL REQUEST APPROVAL FORM

Original ☒ [X]
Revision ☐ []

Location: Desert View Power Project Number: 3029-00-176
Project Name: Ash Pug Mill Replacement Project Type: _____

Project Description Summary - Purpose and Benefit:

The DVP ash silo stores fly ash from the bag houses for disposal. The ash pug mill is the single point for transferring the ash from the silo to dump trucks for transportation to the disposal sites. The ash pug mill is the original installed equipment, and has been in continuous operation since the plant became operational. The ash pug mill has worn to the point that the mill barrel started leaking in several locations, and the mill paddle mixer rotor has broken three times over the course of the last year. Failure of the ash pug mill would result in significant risk of plant derating.

Submitted By: R. Huffman Project Start Date: Nov-16
Date Submitted: 12/15/2016 Construction Start Date: Nov-16
Budgeted Project: Yes ☒ [X] No ☐ [] Service Start Date: Dec-16
If yes, \$ Amount in Annual Budget (\$000): \$80 Project Completion Date: Dec-16

PROJECT COST ESTIMATE:

| Materials and Outside Labor (Description): | Amount | Total |
|--|-----------|-----------|
| Ash Pug Mill | \$ 57,900 | |
| Installation labor | \$ 33,642 | |
| Subtotal-Materials and Outside Labor | | \$ 91,542 |
| Other Project Costs (Description): | | |
| Subtotal-Other Project Costs | | \$ - |
| SUBTOTAL | | \$ 91,542 |
| Engineering | 0.0% | - |
| Contingency and Estimating Allowance | 0.0% | - |
| Interest During Construction | 0.0% | - |
| SUBTOTAL | | \$ - |
| TOTAL ESTIMATED COST OF PROJECT | | \$ 91,542 |

APPROVALS:

Signature and Date

Board Member
President
Controller
Senior VP, Operations
Plant Manager
Originator

[Signature]
[Signature]
[Signature]
[Signature]

For Corporate Use Only:

☐ Project Approved ☐ Project Declined Notification Date: _____
☐ Further Action Required:



CAPITAL REQUEST ANALYSIS FORM

Original ☒ [X]
Revision ☐ []

Location: Desert View Power Project Number: 0

Project Name: Ash Pug Mill Replacement Project Start Date: Nov-16

18 MONTH CASH FLOW AND PROJECT COMPLETION SCHEDULE:

| | Carryover | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 |
|-----------------------|-------------|--------------|--------------|-------------|-------------|-------------|--------------|
| Expenditures (\$ 000) | <u>\$ -</u> | <u>\$ 34</u> | <u>\$ 58</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |
| Cumulative % Complete | <u>0%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> |
| | May-17 | Jun-17 | Jul-17 | Aug-17 | Sep-17 | Oct-17 | Nov-17 |
| Expenditures (\$ 000) | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |
| Cumulative % Complete | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> |
| | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | Forward | TOTAL |
| Expenditures (\$ 000) | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> | <u>\$ 92</u> |
| Cumulative % Complete | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | <u>100%</u> | |

FINANCIAL IMPACT SUMMARY: (Derived from Proforma Income Statement)

| | | | |
|----------------------------------|-------------|-----------------------------|-------------|
| Annual Savings | <u>\$ -</u> | Debt Coverage Average | <u></u> |
| Increase in annual volume: Sales | <u>\$ -</u> | Debt Coverage Minimum | <u></u> |
| R.O.A. before tax | <u></u> | Equity Payback | <u>\$ -</u> |
| I.R.R. after tax | <u></u> | Change in energy efficiency | <u></u> |

ADDITIONAL CORPORATE SUPPORT REQUIRED:

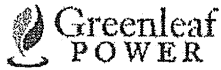
- | | |
|--|--|
| <input type="checkbox"/> Service Interruptions | <input type="checkbox"/> Environmental Assessments |
| <input type="checkbox"/> Plant Shutdowns | <input type="checkbox"/> Water/Land/Air Easements |
| <input type="checkbox"/> Additional Personnel | <input type="checkbox"/> Regulatory Approval |
| <input type="checkbox"/> Customer Agreements | <input type="checkbox"/> Special Permits |
| <input type="checkbox"/> Street Openings | <input type="checkbox"/> Safety |
| <input type="checkbox"/> Right-of-Way Issues | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Zoning Issues | <input type="checkbox"/> Other: _____ |

SUPPORTING SCHEDULES:

(Please List and Attach)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

POST COMPLETION DATE OF REVIEW:



CAPITAL REQUEST NARRATIVE SUMMARY

Original ☒ [X]
Revision ☐ []

Location: Desert View Power

Project Number: 0

Project Name: Ash Pug Mill Replacement

Project Start Date: Nov-16

Background:

The Ash Pug Mill is an original equipment installation. The Pug Mill has reached the end of its useful life. In 2015 & 2016 we have had multiple failures of the pug mill rotating element, bearings, seals, and the housing has been patched several time due to erosion of the mill barell. The Ash Pug Mill is the single method for unloading ash from the Ash Silo. The Ash Pug Mill was budgeted and scheduled for replacement in either the 3rd or 4th Quarter of 2016. The new ash pug mill assembly was received in November and installed.

Description:

There is a single Ash Pug Mill to unload all fly ash collected by the bag houses and stored in the Ash Silo. The Ash Pug Mill mixes the dry ash with water to allow non-dusty unloading of the ash into trucks for transport to disposal. This is a single point piece of equipment for dust less unlaoding of fly ash for disposal. If the ash pug mill failed, the only other method of emptying the fly ash silo is through an elephant snout tube into tanker trucks equiped for dry powder transfer. The ash disposal sites will not accept dry ash from the tanker trucks due to severe dusting during spreading at the disposal sites.

Implementation:

DVP will purchase a new Ash Pug Mill to replace the failing existing Ash Pug Mill. The new mill will be a "like kind" replacement that will require minor inlet & outlet modifications but provide full design throughput of ash for unloading.

Capital Cost:

The capital material cost is for the procurement, fabrication to original manufacturer specification, and transportation of the Ash Pug Mill to to DVP. The project labor, equipment, tools, & consumables cost includes all preparation, demolition, installation, proof testing, and clean-up necessary to replace the Ash Pug Mill.

Benefits:

DVP expects to avoid boiler de-rates and forced outages caused by the failing Ash Pug Mill. The new equipment will will be sufficient for the task.